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Application No. 04 253 083.2 - 2413	Ref. JFW/46227EP1	Date 05.04.2005
Applicant Nokia Inc.		

**Communication pursuant to Article 96(2) EPC**

The examination of the above-identified application has revealed that it does not meet the requirements of the European Patent Convention for the reasons enclosed herewith. If the deficiencies indicated are not rectified the application may be refused pursuant to Article 97(1) EPC.

You are invited to file your observations and insofar as the deficiencies are such as to be rectifiable, to correct the indicated deficiencies within a period

**of 4 months**

from the notification of this communication, this period being computed in accordance with Rules 78(2) and 83(2) and (4) EPC.

One set of amendments to the description, claims and drawings is to be filed within the said period on separate sheets (Rule 36(1) EPC).

**Failure to comply with this invitation in due time will result in the application being deemed to be withdrawn (Article 96(3) EPC).**



Bengi-Akyuerek, K  
Primary Examiner  
for the Examining Division

Enclosure(s): 5 page/s reasons (Form 2906)

**Bescheld/Protokoll (Anlage)**

Datum  
Date 05.04.2005  
Date

**Communication/Minutes (Annex)**

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Sheet 1  
Feuille

**Notification/Procès-verbal (Annexe)**

Anmelde-Nr.:  
Application No.: 04 253 083.2  
Demande n°:

The examination is being carried out on the **following application documents**:

**Description, Pages**

1-45 as originally filed

**Claims, Numbers**

1-14 as originally filed

**Drawings, Sheets**

1/35-35/35 as originally filed

- 1 The following documents cited in the Search Report are referred to in this communication; the numbering will be adhered to in the rest of the procedure:

**D1:** US-A-6 141 751 (OGAWA HIDEHARU) 31 October 2000 (2000-10-31).

**D2:** WO 02/073377 A (JALOVECZKI LASZLO) 19 September 2002 (2002-09-19)

- 2 The present application does not meet the requirements of Article 84 EPC, the reasons being as follows:

2.1 The statement in **claims 1 and 12-14** "modifying the string by removing at least one random character from the string" leads to doubts as to the meant randomness. Therefore, this phrase should be reworded as "modifying the string by removing at least one randomly selected character from the string".

2.2 The subject-matter of **claim 10** is defined via a disclaimer ("...wherein no non-digit characters are removed") rather than by positive features, thereby rendering the scope of protection sought unclear. Therefore, positive features should be used for



defining the corresponding subject-matter (see Guidelines, C-III, 4.12).

- 3 The present application does not meet the requirements of Article 52(1) EPC, because the subject-matter of independent **claims 1 and 12-14**, insofar as they can be understood properly, does not involve an inventive step in the sense of Article 56 EPC.

- 3.1 Document **D1**, which is considered to represent the closest prior art, discloses in accordance with features of **claim 1** (the references in parentheses applying to this document):

A method for conducting secure communications, comprising:

- (a) connecting a user device ("terminal computer") to a server ("central computer") via a publicly-accessible network (see column 1, lines 6-17 and column 3, lines 57-59);
- (b) receiving a certificate (column 3, lines 61-62: "The central computer sends a display character string to a terminal computer...");
- (c) converting the received certificate to a character string (column 2, lines 11-13: "...step of converting the display character string based on a predetermined password conversion rule to obtain an input character string to be entered by a user; see also column 3, lines 63-64);
- (d) receiving, from a user previously provided with an identifier ("pre-registered password") through a trusted medium, input corresponding to the required character string (column 6, lines 11-16: "The central computer determines a character string to compared to the character string entered by the user from the password conversion rule which has been pre-registered for that particular user");
- (e) continuing connection to the server only if the user input matches the required character string (column 6, lines 16-18: "When the character strings are equal to each other, the user verification is successful...").

- 3.2 The subject-matter of **claim 1** of the present application differs from that in document **D1** in that the method also includes modifying the string by removing at least one randomly selected character from the string and displaying this modified string for being complemented by the user.



3.3 The objective problem to be solved by the present invention may therefore be regarded as how to realise a user-friendly display for secret-code verification.

3.4 Starting from the technical teaching of document **D1**, in which the application of different password conversion rules is disclosed (column 4, lines 33-67) among which a character in the display character string located at a predetermined position is used for the conversion (particularly see the example in column 4, lines 36-41), the skilled person would readily apply a graphical display showing to the user a modified display character string with the predetermined positions indicated within the character string, for example, by inserting spaces or blanks, in order to improve the user-friendliness in code verification based on common knowledge. Consequently, this additional feature would represent a slight and obvious modification of the approach described in **D1** without producing any non-obvious interrelationship or technical effect.

As a result, the skilled person would arrive at the subject-matter of **claim 1** in an obvious manner in order to solve the objective problem stated above.

3.5 As a consequence, **claim 1** is not allowable under Article 52(1) EPC for lack of inventive step of its subject-matter (Article 56 EPC).

3.6 Referring to the objection raised above, **claims 12-14** are also not allowable for lack of inventive step (Articles 52(1) and 56 EPC) since their subject-matter corresponds to that of claim 1, whereby all the method steps of claim 1 are represented by corresponding structural features (**claim 12**), by a computer program (**claim 13**) or by method steps related to a hash-based certificate ("modified identifier") representing another obvious embodiment (**claim 14**).

3.7 Moreover, it should be noted that the teaching of document **D2** (see cited passages in the Search Report) taken alone is also relevant to the question of inventive step (Articles 52(1) and 56 EPC) regarding the subject-matter of **claims 1 and 12-14**.

4 Additionally, the dependent **claims 2-11** do not appear to contain any additional

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technical features which, either alone or in combination with the features of any claim to which they refer, meet the requirements of the EPC with respect to inventive step (Article 56 EPC) since their subject-matters (indication, implementation, and notification of the character removal; source of the certificate) are either known from the prior art (documents **D1**, **D2**; see cited passages in the Search Report) or merely represent minor implementation details to the person skilled in the art.

As a consequence, **claims 2-11** are also not allowable under Article 52(1) EPC due to lack of inventive step (Article 56 EPC) of their subject-matter.

- 5 In case the Applicant intends to file a new set of claims he should also take the following remarks into consideration:

- 5.1 The independent claims are not in the two-part form in accordance with Rule 29(1) EPC, which in the present case would be appropriate, with those features known in combination from the prior art (document **D1**) being placed in the preamble (Rule 29(1)(a) EPC) and with the remaining features being included in the characterising part (Rule 29(1)(b) EPC).

The claims should therefore be redrafted accordingly. If, however, the Applicant is of the opinion that the two-part form would be inappropriate, then reasons therefore should be provided in the letter of reply.

- 5.2 The features of the claims should be provided with reference signs placed in parentheses to increase the intelligibility of the claims according to Rule 29(7) EPC. This applies to both the preamble and characterising portion (see Guidelines, C-III, 4.11).

- 5.3 To meet the requirements of Rule 27(1)(b) EPC, the documents **D1** and **D2**, which appear to represent the most relevant prior art, should be identified in the description and their relevant contents should be indicated. The Applicant should also indicate in his letter of reply the difference of the subject-matter of the newly filed claims vis-à-vis the state of the art and the significance thereof.



Furthermore, following from the disclosures of the prior art, the statement indicating the technical problem to be solved requires a revision which should be effected taking the requirements of Rule 27(1)(c) EPC into account (see also Guidelines, C-II, 4.5).

- 5.4 When filing amended claims the Applicant should at the same time bring the description into conformity with the amended claims (Rule 27(1)(c) EPC). Care should be taken during revision, especially of the introductory portion and any statements of problem or advantage, not to add subject-matter which extends beyond the content of the application as originally filed (Article 123(2) EPC).
- 5.5 The corresponding publication number of the patent application introduced on page 45, paragraph [01] of the description part should be indicated in order to identify it properly (see Guidelines, C-II, 4.3).

Furthermore, the statement "incorporated by reference herein" in paragraphs [01] and [03] should be deleted as the referred documents are not essential to satisfy the requirements of Article 83 EPC (see Guidelines, C-II, 4.18).

- 5.6 The commercial products ("Series 60", "SYMBIAN OS", "Nokia 7650" etc.) introduced in paragraphs [19], [41], and [49] of the description part should be either indicated as trademarks or removed since they merely denote the origin of suitable devices and applications, the use of which being not necessary for carrying out the invention (see Guidelines, C-II, 4.16).
- 5.7 In order to facilitate the examination of the conformity of the amended application with the requirements of Article 123(2) EPC, the Applicant is requested to clearly identify the amendments carried out, irrespective of whether they concern amendments by addition, replacement or deletion, and to indicate the passages of the original application as filed on which these amendments are based (see Guidelines, E-II, 1).